ABSTRACT

EDUCATIONAL LEADERSHIP

BROWN, HAZEL HARGROVE

B.S. SPELMAN COLLEGE, 1953

M.A. ATLANTA UNIVERSITY, 1964

Ed.S. ATLANTA UNIVERSITY, 1974

THE EFFECTS OF A STAFF DEVELOPMENT MODEL ON THE TEACHING PERFORMANCE OF PROBATIONARY TEACHERS

Advisor: Dr. Olivia Boggs

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This study investigated the effects of a staff development program for performing the three broad tasks of the Georgia Teacher Evaluation Program. Principals responded to a survey indicating the extent to which teachers were observed performing these tasks. Data were reported on 67 teachers who reported to a research-based staff development program and 64 randomly selected teachers who were not enrolled in the program. The effect of the training method was assessed with regard to the three teaching tasks of providing instruction, assessing and encouraging student progress, and managing the learning environment. The T-Test of mean score differences revealed statistically significant differences for each variable in favor of the treatment group.

THE EFFECTS OF A STAFF DEVELOPMENT MODEL ON THE TEACHING PERFORMANCE OF PROBATIONARY TEACHERS

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HAZEL HARGROVE BROWN

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CHAPTER I

INTRODUCTION

In 1987, the Georgia Board of Education mandated a measure that required each school system to plan, develop, and implement local staff development programs to meet the needs of all employees (Rogers, 1989). The Atlanta School System, in its comprehensive staff development plan, identified probationary (non-tenured) teachers as one employee group in need of professional development.

Attending to the needs of new teachers was an important consideration for determining a training priority. Research indicates that about 15% of new teachers leave after their first year of teaching compared to the overall teacher turnover rate of 6%. Of all beginning teachers who enter the profession, 40-50% will leave during the first seven years of their career, and two-thirds to three-fourths of those will do so in the first four years of teaching (Heuwling-Austin, 1985). Research further indicates that the most academically talented teachers leave in greatest numbers (Schlechty and Vance, 1983).

The staff development model on which this study was based helped new teachers deal with the realities of teaching at a critical time in their teaching career. During the probationary period, teachers must improve their performance to the level acceptable to

be awarded tenure after 3 years of employment. The training model developed for this program offered teachers relevant and practical instructional experiences. This study assessed the effectiveness of the program.

Partly as a result of Georgia's Quality Basic Education Act (QBE), local school systems see staff development as a key aspect of school improvement efforts. The Staff Development Division of the Atlanta Public School System initiates extensive staff development programs to facilitate the continuing professional and personal growth of school personnel. Investigations into the effectiveness of staff development programs have followed a variety of approaches. There have been numerous studies to determine the attitudes of teachers about staff development (Ainsworth, 1976; Brim & Tolbert, 1974; Joyce & Peck, 1977). Other studies listed the characteristics of effective staff development focused from attitudes to actual practices that often linked program effectiveness to system priorities and school-wide efforts (Kells, 1981; Yarger, Howey, & Joyce, 1980). Some investigators (Garmston, 1987; Little, 1981; Showers, 1985) have reported on the effectiveness of staff development in relationship to staff incentives. Still others (Collins, 1981; Daresh, 1987; Firth, 1982) have examined when and how often staff development is provided as factors influencing the effectiveness of staff development. In spite of the growing research on staff development programs, much remains to be learned about their effectiveness.

Statement of the Problem

Although staff development is continuously planned, implemented, and evaluated, a framework is necessary to determine how the training benefits teachers. Effective teaching as measured by the Georgia Teacher Observation Instrument (GTOI) would appear to be an important consideration in the development of such a framework. This study sought to determine whether the experience of a two-week Demonstration Staff Development Program was effective in improving teacher performance as measured by dimensions of the Georgia Teacher Observation Instrument.

Evolution of the Problem

School systems are necessarily concerned about the continuous growth of professional staff members. The major task for any system is the enhancement of learning for students and one mechanism for achieving this task is teacher effectiveness. Shulman (1979) reported that any changes in curriculum and instruction must be mediated through the minds, motives and activities of teachers. A recent national study, A Nation Prepared (1986), stated that the key to quality instruction for all students is the capable teacher. Considering the number of children for whom a teacher provides instruction during an average teacher career, any effort to improve teacher performance is an investment with the potential to enhance the achievement of thousands of children.

The school system plays a significant role in teachers' professional development. An important purpose of staff

development is to meet the needs of new teachers entering the profession. Professional development is critical to the beginning teachers' success and well being. According to Rogers (1990):

> Each year Georgia needs about 7,500 new teachers. We are losing many of our quality teachers . . . Georgia's teacher shortage is about to reach crisis proportions. By 1993, enrollment in Georgia is expected to increase 12 percent in the elementary grades and 7.5 percent in high school. Yet the number of education graduates in Georgia is decreasing each year: only 1,720 in 1988. Teachers are leaving the profession in huge numbers. Of those who entered the work force in 1985, 35 percent left during their first four years. In 1988, more than 5,300 educators did not return to their jobs from the previous year. (p.1)

The typical school system recruits teachers yearly. Many of these teachers are selected for employment by virtue of their graduation from institutions with teacher preparation programs approved by the state. Some recruits have little or no experience in teaching beyond an often inadequate student teaching experience. They have a readiness for professional growth. The system's response is to provide short term or regular staff development training designed to develop needed skills and knowledge with opportunities for practice for teachers entering or re-entering the system. The two dimensions of development and practice are critical to this process.

Staff development is a continuous and comprehensive process that utilizes human development (Lovell, 1983). Many terms are used with almost the same meaning as staff development: inservice,

preservice and professional development. Harris (1980) treats staff development as the board umbrella under which training activities are carried out.

There is a strong consensus that staff development is critical if school programs and practices are to be improved (Wood, McQuarrie, and Thompson, 1982) and that preservice teacher education cannot fully satisfy the requirements for a well-prepared work force (Little, 1989).

Partly as a consequence of the state mandated Quality Basic Education Act (QBE), local school systems are assuming an increasingly prominent role as providers and consumers of professional services. Little (1989) concluded from a study of thirty school districts that from both fiscal and programmatic points of view, professional development at the local level has assumed greater significance. QBE requires local school systems to plan, develop, and implement the local staff development programs to meet the needs of all employees (Rogers, 1989). During the summer of 1989, 1700 of Atlanta Public Schools' professional staff personnel participated in staff development programs that were designed, planned and implemented by the Division of Staff Development. This included training for teachers, support staff, and administrators. The cost for these services amounted to $800,000 (C. Fuller, personal communication, October 12, 1989).

In the Atlanta Public School System, the Assistant Superintendent for Curriculum and Instruction has administrative responsibility for staff development services. However, the primary

responsibility for the design and delivery of services is assigned to the Director of Staff Development, a specialist who devotes full time to staff improvement activity. In districts studied (Moore and Hyde, 1981; Schlechty and Whitford, 1983) staff development specialists accounted for the design and delivery of 92 percent of all participant hours with the largest share of the staff development hours serving curriculum and instructional functions.

Over the past decade, professional development has become a growth industry and local systems have emerged as direct providers of services. There is increasing interest in providing teachers with information about the growing body of knowledge on teacher effectiveness (Smith, 1980). The system dominates in relation to other sources as providers of professional development. Little (1984) reports that teachers are more likely to participate in a locally-provided staff development program than to enroll in college or university course work. These data are corroborated in a national summary reported by the National Education Association (NEA) (1987). This status report records a 15-year decline in teachers' participation in university course work and a corresponding increase in attendance in locally implemented professional development programs. Thus, districts have emerged as the primary source of professional knowledge and provide the greatest opportunities for collegial contacts away from the local school. Little (1984) parallels professional development in teaching with an industrial model wherein the employer designs and conducts job-relevant training.

The past decade has presented considerable advances in the analysis of classroom processes wherein a greater recognition of the impact of staff development upon the outcomes of instruction is evidenced. Thus, the area of staff development is beginning to produce some important considerations for public education. Reports from studies outlining a need for school reform include staff development as a recommendation for improvement. The Quality Basic Education Act mandates systems to identify areas where staff development can improve instructional effectiveness. Legislative funding is provided to carry out programs for staff who do not meet specified performance standards (News Release, August 11, 1989). Two national studies cite staff development as an important factor in the redesign of American public schools (A Nation at Risk, 1983; A Nation Prepared, 1986).

Because of the emerging focus of national and state attention on staff development as a means for improving educational delivery to children, staff development divisions have a unique opportunity to respond to this new attention with meaningful results (Edelfelt, 1984).

Purpose of the Study

The purpose of the study was to investigate the effect of a staff development program on teacher performance with particular emphasis on: (a) improving instruction, (b) assessing and encouraging student progress, and (c) managing the learning environment. The study employed a treatment-control group design.

Significance of the Study

Low student performance generates great concern among administrators and teachers. Despite the increased understanding of the learning process and the abundance of approaches and materials, many of our schools are still plagued by low achievement. If it can be established that training similar to that described here is an effective staff development model for improving teaching performance, it is likely that such findings can provide a conceptual framework from which administrators can make critical decisions about teacher training.

The staff development model presented here employed the components of: presentation of theory, demonstration, practice, and coaching. The model was inspired by findings from the research; its training design was guided by the research on staff development and teacher effectiveness. This study tested the effects of a staff development program that introduced selected findings from teaching effectiveness research into a staff development model for teachers. The premise of this study was that: (a) research findings from staff development and teaching effectiveness studies can provide sufficient direction for planning a staff development program that is congruent with good teaching practices, (b) teachers can acquire specific teaching practices while participating in a staff development program which employs a research-based training method, and (c) such training can facilitate the transfer of these

practices to the classroom and increase the effectiveness of teacher performance.

This pattern or plan can be used to guide the design of a staff development program not only aimed at increasing teachers' knowledge base but one that facilitates the transfer of teaching skills to the classroom. It is hoped that the results of this study, though limited in scope, will provide an initial perspective on the implementation and effectiveness of a research-based training model and that staff development approaches will be more effective for teacher training.

There are many studies of staff development effectiveness. None of those reviewed investigated the effectiveness of a specific staff development model on teacher performance as measured by the new Georgia Teacher Observation Instrument.

Research Questions

Effective teaching practices were presented to teachers in a (research-based) staff development model that utilized the training methods of: (a) presenting/exploring theory, (b) demonstrating/modeling of a skill, (c) practicing of the skill, (d) getting feedback about performance, and (e) coaching in the workplace (Joyce and Showers, 1988). This treatment was presented to teachers over a two week period. The following research questions were investigated in this study:

1. Is there a statistically significant difference in the teachers' ability to provide instruction, as measured by dimensions of the

GTOI, between teachers who participated in the summer staff development and those teachers who did not?

2. Is there a statistically significant difference in the teachers' ability to assess and encourage student progress, as measured by dimensions of the GTOI, between teachers who participated in the summer staff development and those teachers who did not?

3. Is there a statistically significant difference in the teachers' ability to manage the learning environment, as measured by dimensions of the GTOI, between teachers who participated in the summer staff development training and those teachers who did not?

4. Is there a significant difference in the teaching performance of teachers in different age ranges?

5. Is there a significant difference in the teaching performance of teachers at the elementary or middle school level?

CHAPTER II

REVIEW OF RELATED LITERATURE

The purpose of this study was to investigate the effects of a staff development program on probationary teachers' performance of teaching tasks in their actual classroom settings. It sought to ascertain whether the classroom performance of probationary teachers differs significantly according to whether or not they are exposed to a training method that was guided by staff development effectiveness research and comprised of the following components: exploration of theory, demonstration or modeling of a skill, practice of the skill under simulated conditions, feedback about performance, and coaching in the setting.

The research base for this training model can be referenced to several sources, but the most intensive research has been conducted by Joyce and Showers (1982, 1983, 1988). They identify these variables as useful for the development of a skill. This study investigated the effects of the staff development on teachers' performance in providing instruction, assessing and encouraging student progress, and managing the learning environment as measured by the observation records for the teaching dimensions of the Georgia Teacher Observation Instrument (GTOI).

This chapter presents a review of the literature relative to the specific variables investigated which provides evidence of relationships between staff development training methods and the acquisition of those skills that are targeted for improvement and the actual performance of those tasks in the classroom. It includes a review of: (1) effective staff development models, and (2) teaching tasks which are associated with effective teaching and serve as training objectives for staff development programs.

Training Models

Sparks and Loucks-Horsley (1989) consider the training model to be synonymous with staff development. They view the staff development model as a pattern or plan which is used to guide the design of a staff development program which encourages teachers to acquire knowledge or skills through appropriate individual or group instruction. A general body of research provides evidence that certain teaching skills are necessary for student learning, and that a staff development model can be designed to develop competence in those skills and even facilitate the use of such skills in the classroom. Sparks and Loucks-Horsley (1989) turned to Stones' (1979) matrix for the analysis of conceptual objectives. In this study, the researchers designed a training method to result in the acquisition of a specified concept. The training elements included: (a) instruction through definition and supporting examples, (b) identifying new instances of the concept, and (c) applying the concept by making use of it in a new setting. The design included a plan that would encourage skill

use in the classroom setting. The question posed in the study was: Can a teaching skill identified from research on teaching-learning relationships (i.e., clarity of explanation) be acquired through training components (i.e., framing, keys, links, focusing, providing examples, and monitoring) and applied in the classroom? The results of the investigation produced consistent, although only moderately powerful, evidence that teachers receiving training achieved greater instructional clarity.

Ben-Chaim, Fresko, and Carmeli (1988) implemented a staff development program to make mathematics teaching more effective and more varied. Teachers were provided with both individual and group assistance. They were advised individually by master teachers, who observed their lessons at regular intervals, discussed instruction with them and offered advice. Group activities were provided for the teachers through the observation and analysis of demonstration lessons given by master teachers. A workshop course was held to enrich teachers' subject matter and pedagogical knowledge of mathematics, exposing them to various strategies and teaching aids, and providing them an opportunity for discussion of teaching issues. The major aim of these activities was to alter teacher behaviors in the classroom by encouraging them to be more reflective about what was occurring during a lesson and by offering them alternative instructional approaches.

As described in various models of teacher change (Schein, 1972; Friedlander, Bruckheimer, and Albert, 1987), teachers were expected to pass through a number of phases in becoming better

teachers. They would be encouraged to try out new strategies and gradually learn to put them to use effectively in the classroom. The training model developed for this in-service program was designed to change classroom behaviors and produce an increase in pupil mathematics achievement. Evaluation data showed some improvement in classroom instruction, in teachers' mathematics knowledge and in pupil achievement. The evaluation instruments included student achievement tests, a classroom environment scale, classroom observation forms and various questionnaires administered to the teachers.

Veenman, Lem, and Roelofs (1989) assessed the effectiveness of a staff development program for teachers as it relates to areas of classroom management, instruction, and pupils' on-task behavior. The study examined the effects of a staff development program that introduced selected findings from teaching effectiveness research into ongoing school settings with mixed-age classes. The model was comprised of of these components: leadership, school climate, teacher behaviors, pupil behaviors, and pupil achievement. The concept was derived from Squires, Huitt, and Segars' (1983) teaching effectiveness research. The treatment group differences at the end of the training indicated that the staff development program enhanced teachers' skills for each task.

Krajcik and Penick (1989) reported the findings of one science education program designed to be a model program at the University of Iowa Science Education Center. The goal of the program was to develop science teachers who have a research-based rationale for

teaching science and the ability to apply that rationale in the science classroom. The question to be answered was, can graduates of a systematic teacher education program be prepared to produce results similar to acknowledged "good teachers?" The treatment consisted of methods seminars and special science classes stressing application of science in the philosophy and history of science. This group was compared to a very select national group of teachers who were recognized for excellence in teaching or were very active in curriculum development. This program was inspired by the research findings of Lunetta and Yager (1983); Yager and Lunetta (1984); and Yager, Lunetta, and Tamir (1979).

The comparison group was comprised of participants in the summer 1985 Honors Workshop. They were a very select group of teachers--older, more experienced, and more likely to have a master's degree or higher than the experimental group. Even so, the experimental group, with only three years of average experience, compared very favorably with Honors Workshop teachers. Both groups had similar course objectives, similar teaching strategies, used materials and equipment a similar amount of time, and allocated class time the same way. The study concluded that the treatment received allowed the experimental group to obtain teaching characteristics and goals similar to the very select group of teachers. National committees and educational leaders (Boyer, 1983; Clark, 1984; National Science Board Commission, 1983) argued against teacher education. The results of this study indicated that a

well-designed, teacher education program could make an extremely positive difference in the preparation of teachers.

Another approach to meeting staff development needs was seen in the individually-guided staff development model wherein the teacher identified a need or interest for professional development, determined related objectives, and developed a plan that would achieve those objectives. Teachers engaged themselves in research, curriculum development, or attended workshops. These activities were teacher-initiated learning activities. Researchers Hering and Howey (1982) reported that this model was valuable for meeting individual teacher needs and concerns. Loucks-Horsley et al. (1987) reported outcomes that empowered teachers to address their own problems, create a sense of professionalism, and provide intellectual stimulation. Mann (1985) described the effectiveness of a project conducted in New York City and Houston as resulting in changes in classroom practices, increasing student attendance, discipline, and motivation.

Manatt and Stow (1984) described a school improvement model for staff development which involves a consulting team working with staff development specialists in schools or school districts to develop a comprehensive approach for managing staff development concerns. They incorporated the research on effective schools and effective teaching practices and employed a computerized database to help staff developers address issues related to staff development.

The observation-assessment model for staff development is an outgrowth of clinical supervision which assumes that teaching can be observed objectively, analyzed, and that positive feedback can result in improved performance. Glickman (1986) recommended that teacher feedback should be based on the teachers' cognitive level within a range of identifying the problem and solution for a "low-abstract teacher," exchanging perceptions about problems and solutions for a "moderate-abstract" teacher to a non-directive approach for "high abstract" teachers (help teachers clarify problems and select actions). Peer coaching, wherein teachers visit other teachers' classrooms to gather data on student or teacher behavior and provide feedback to the teacher is a form of the observation-assessment model of staff development. Joyce and Showers (1982) and McGreal (1983) questioned the reliability of observations and suggested that the reliability be increased by narrowing the range of what is looked for or by using an observation guide to focus the observation with both actions, a pre-conference to gather information prior to the observation would increase reliability. Shalaway (1985) found that as many as 15 coaching sessions may be necessary to institute a new teaching strategy. Brandt (1987) reported that sometimes as many as 30 sessions are needed in order for mastery of a new skill to be achieved.

Many researchers viewed the processes involved with school improvement and curriculum development as a means for teachers to acquire important skills and thus identify such involvement as staff development. Glickman (1986) wrote that involvement in

developing curriculum enables teachers to learn content and enhance their planning skills, both of which are thinking skills. These practices match his premise that staff development should improve teachers' ability to think. Glatthorn (1987) recommended that curriculum planning and development activities be conducted with groups of teachers. This encourages them to share ideas about teaching and learning in a cohesive manner as well as perform the curriculum development tasks. Sparks, Nowakowski, Hall, Alex, and Imrick (1985) reported the results of a project which involved teachers in a school improvement plan in an elementary school.

The decision was made to establish new direction for improving the reading program. New approaches were implemented after ranking the performance on the reading objectives and targeting action on the objectives with the lowest scores. The staff studied effective instructional strategies and selected activities for professional growth. The study reports gains on the reading tests.

Kyle (1985) reported on one of the many schools that selected the school improvement process to implement elements of effective schools. The staff participated with the administrators in planning a process which engaged the staff in planning, assessing, implementing, and evaluating the achievement of selected "ideal practices." The study reported an improvement in the school climate and student achievement. Teacher attitudes, knowledge, and skills also improved.

The staff development model most frequently mentioned was the training model. This model was formulated on the premise that

there are new skills and knowledge as well as a large number of teaching practices that have been identified and verified by research to be related to student learning (Brophy and Good, 1986; Brown and Armstrong, 1984; Gage, 1984; Smith, 1985).

One such model, Joyce and Showers (1988), determined that, depending upon the desired outcomes, training might include exploration of theory, demonstration or modeling of a skill, practice of the skill under simulated conditions, feedback about performance, and coaching in the workplace. In addition to these training components, others have identified training activities which can be used separately or applied in combination for greatest impact. Simbo (1989) reported on an experimental study using two groups of teachers. One group was exposed to a microteaching program. The findings in the study revealed that the teachers who were exposed to the microteaching experience demonstrated a higher quality of teaching behaviors during the observed teaching experience.

Leggett and Hoyle (1987) reported that peer coaching is effective in improving teachers' instructional skills. They described the peer coaching program of the Keystone Project in the Fort Worth (TX) School District. This project trained teachers for coaching and reported that peer coaching provides an ongoing focus on a specific skill or strategy that enable the teacher to carry training back to the classroom.

Sparks and Loucks-Horsley (1989) reported the trainer's role as that of selecting activities (e.g., lecture, demonstration, role-playing, simulation, microteaching, peer discussion, observation,

videoteaching) that will aid teachers in achieving the desired outcomes.

In summary, the training model is more frequently equated with staff development. It sets forth objectives and presents related content that targets specified goals and impacts behavior and performance.

Teaching Tasks

Rosenshine (1986) reported that teaching in small steps, providing active practice during initial learning, and checking for understanding at each point before proceeding to the next step helped students assimilate unfamiliar content. Practice is another activity that is part of the complex skill of imparting instruction. Rowe (1982) reported that short-term memory quickly becomes saturated with less familiar content. Immediate practice at each step of instruction helps students process new learning and facilitates its movement into long-term memory so that the short-term memory can receive additional information.

Effective teachers use guided practice to monitor student learning so that errors can be corrected before students begin independent practice. By controlling practice activities, especially with the practice of new material, effective teachers increase the opportunities for students to be successful in subsequent activities and assignments (Barnes, 1981). Teachers who provide clear instruction help students remember content. Brophy and Good (1986) and Rosenshine and Stephens (1986) emphasized main points,

critical attributes, or distinguishing features of the lesson. Bringing main ideas to the attention of the class allows students to focus on what the lesson is about and maximizes student achievement.

Reviews are important in maximizing student achievement. Rosenshine and Stephens (1986) listed a number of ways in which reviews may be carried out, including having students prepare a written summary of the previous lesson, summarize the rule or process in their own words, write the main points on the board, or summarize the main points to each other in groups. Such structuring of content, in the form of short reviews which summarize lesson segments, is helpful to students.

Monitoring is an important teaching skill. Hunter (1982) recommended checking students' progress by asking questions, interpreting relevant observable behavior during assessing activities, circulating among students during seatwork or individual work times, and asking all students to signal responses.

Content related feedback and appropriate correctives for inadequate student performance are major teaching functions for responding to student answers and correcting student errors. Rosenshine and Stephens (1986) indicated that it is important that the student understand why the response is incorrect and how to correct it so that future responses will be correct. Students are affected by their learning environment. Berliner (1984) noted that the communication of academic expectations for achievement; development of a safe, orderly and academically focused environment for work; quick fair and sensible management of

deviancy; and the development of cooperative environments for learning contribute significantly to a supportive classroom climate.

Time on task maximizes academic learning. Hawley and Rosenholtz (1984) reported that effective teachers are frequently able to shift class activities in one to ten seconds by having materials sorted for distribution and by clearly stating directions, expectations, and purposes for activities.

In summary, several researchers have identified key tasks which effective teachers perform in their classrooms. These tasks are described as practices and behaviors that provide a friendly and appropriate learning environment and set clear objectives of what is expected to be learned while making the content simple and clear. Further, teachers use a variety of strategies which match the students' learning styles.

Summary

The reviewed literature was organized in two major sections: (1) The first examined the research base for staff development models including ways to organize, structure and deliver staff development programs; (2) The second section described key teaching competencies or those teaching tasks that are targeted for improvement and serve as training objectives for the content of the staff development program.

While the research points to common attributes for organizing a successful staff development program, each staff development model discussed here requires a somewhat different support to make

it successful. The selection, incorporation, or combination of the models of staff development presented in this review require a match between the model and the intended outcomes.

The research revealed that much of the content for professional development programs was basically targeted toward the realities of teaching, guided by the facets of effective teaching research. Content is focused largely on practices of classroom management, instructional planning and instructional delivery.

The research cited in this study gave insights into training methods and the effects that they produced on teaching performance. The literature review substantiated that training procedures impact performance outcomes. The studies that reported such a connection numerate ways to design and deliver staff development programs that achieve the desired outcomes. There is a need to know more about the effects of integrating training components and to study which match of components produce the greatest impact on targeted outcomes.

The literature revealed that in the past decade researchers were beginning to respond to the growing concern about the effectiveness of staff development programs. Research in this area is evolving towards a more experimental view that links program effectiveness and outcomes.

Although this review of the literature has not been exhaustive, the studies offer a sufficient knowledge base to allow judgements to be made about trends that appear to affect the variables in this study.

CHAPTER III

THEORETICAL FRAMEWORK

The question of whether participation in a staff development program derived from a research-based training model could increase the frequencies of selected teaching practices in the classroom gives rise to the theory tested in this study.

The purpose of this study was to assess the effectiveness of a research-based staff development program derived conceptually from Joyce and Showers' (1983) studies of professional development for teachers. These studies identify components of training methods researched to result in the acquisition of skill and transfer of skill to the classroom.

The theoretical framework proposed in this study links staff development participation with teacher effectiveness. Essentially, this study assesses the effect of a conceptually-based training method on the acquisition and transfer of a set of learning-related teaching tasks. This theoretical framework was inspired by the findings from teaching effectiveness and staff development research.

The late 1970s and 1980s brought on a restructuring of staff development activities which shifted the direction away from a focus on attitudes to a focus on actual practice as an outcome of inservice

education (Ainsworth, 1976; Joyce and Peck, 1977; Zigarmi, Betz, and Jensen, 1977). During the late 1970s and 1980s research reported a shift from focusing on attitudes understanding behaviors that characterize skill acquisition and the appropriate and consistent use of new strategies in the classroom (Berman and McLaughlin, 1978; Kells, 1981; Yarger, Howey, and Joyce, 1980). Staff development came of age in the 1980s. Research and knowledge generated by staff developers have substantially advanced understanding of effective staff development practices.

Dependent Variable

The central task of staff development might be viewed as the development of teaching skills that will enhance classroom teaching. The dependent variables (provides instruction, assesses and evaluates student progress, and manages the learning environment) are the broad teaching performance tasks that have been designated by the state to be assessed as a part of the Georgia Teacher Evaluation Program (GTEP). The theoretical framework examined the linkage between staff development and the actual performance of the teaching tasks in the classroom. It was based on the premise that there is research justification to believe that certain skills relate positively to effective classroom practice and that a staff development model can employ a training method that facilitates the acquisition of these skills and their transfer to the actual classroom teaching situation.

An examination of teacher effectiveness would appear to be the most important consideration in the development of such a framework. Thus, for this study, three teaching tasks were observed. Teaching effectiveness was scored as teachers performed the tasks of providing instruction, assessing and evaluating student progress, and managing the learning environment. These three board areas of teaching performance were selected by the Georgia Teacher Evaluation Program in response to the Quality Basic Education (QBE) Act. The tasks are supported by research/rationale statements. They serve the purpose of reinforcing effective teaching practices and improving instructional effectiveness. The complete instrument, which expands these three broad teaching tasks with measurable components referred to as dimensions, was intended as a training resource. The tasks, which are research-based and serve the purpose for the performance evaluation of the Georgia Teacher Evaluation program, are deemed tasks of best choice for observing teacher effectiveness in this study (Rogers, 1989).

The research base for this theory came from the findings on teaching effectiveness research. Several researchers suggested that staff development activities should prepare teachers to transfer practices to their jobs. Gliessman (1981) indicated that transfer to the work setting should be the objective of staff development activities and the test of training is the ability of the teacher to exhibit the newly-acquired skill in the classroom. Howey and Vaughn (1983) reported that learning tasks should be structured to effect visible change and improvement in performing the task.

Gliessman and Pugh (1984) designed a study to promote skill transfer at the design stage. They reported direct evidence that such an application intervention at the planning stage can bring about change in performance. The skill addressed was organizational clarity (Gliessman and Pugh, 1984; Gliessman, 1987). Gliessman, Pugh, Brown, Archer, and Snyder (1989) contended that the stage of training is designed to result in the acquisition of a specified concept. Stones (1979) presented the basis for this assumption in his contention that no concept is fully mastered until it is "pushed" to the level of use.

The power of training to alter teachers' knowledge and instructional skill is well established. Its impact on teachers, however, depends upon its objectives and the quality of the training (Sparks and Loucks-Horsley, 1989).

Independent Variable

Training is a powerful process for enhancing knowledge and skills (Joyce and Showers, 1983). The independent variable in this study was a staff development research-based model derived from a conceptually-based training method from Joyce and Showers' (1983) studies of professional development for teachers. They linked certain training components to specific teaching outcomes. The components are: presentation of theory, demonstration of skill, practice, feedback, and coaching. They have determined that this blending of components is important if targeted training outcome is skill development.

While these components may be applied separately, the greatest impact was found when they were used in combination (Joyce and Clift, 1984; Showers, Joyce and Bennett, 1987; Leggett and Hoyle, 1987; and Wade, 1985). The research base for this theory can be found in the effective staff development research from studies that support the theory that certain training elements promote the attainment of specific outcomes and that certain training interventions when applied individually or in combination bring about change in performance.

In addition to the components identified by Joyce and Showers (1983), Sparks (1983) identified discussion and peer observation as training components useful when new concepts or techniques are presented and as a problem-solving tool after teachers have had an opportunity to test new strategies in their classrooms. Both support personnel and role playing are examples of activity-oriented components which receive attention in the literature as training strategies (Wood, Thompson, and Russell, 1981; Wu, 1987).

Joyce and Showers (1983) hailed teachers as wonderful learners who can master almost any kind of teaching strategy and state that it is the trainer's role to select the appropriate components in the combination that will best aid teachers in achieving the desired outcomes. Caldwell (1989) cited practices that can organize, structure, and deliver training toward targeted goals. Gliessman (1981) accounted for the acquisition of teaching skills through the processes of practice, reinforcement, or modeling.

A vast number of studies report on the effects of such training methods as behavior modification, micro-teaching, interaction analysis, video-based feedback, role-playing, simulation, and other activities in changing teaching skills (Cruickshank and Metcalf, 1989; Fuller and Manning, 1973; Robinson and Swanson, 1980). Sparks (1983) listed the following research-based elements that impact teaching skills: diagnosing and prescribing the pre-program assessment of participants' needs and ways to meet them; giving information and demonstrating its application; practicing and giving feedback; and coaching.

Projected Relationship Between Variables

This study sought to determine if a demonstration staff development model actually produced effective outcomes. This link was examined by connecting the program components (the actual treatments that were implemented) and the outcomes (the impact of the staff development program on the teachers as measured by the teachers' performance on the Georgia Teacher Observation Instrument.)

An effective staff development program (independent variable) was expected to have a positive effect on how teachers provide instruction, assess and encourage student progress, and manage the learning environment (dependent variables). The staff development program combined research-based elements into a training design. These elements are researched to link program procedures to the outcome of skill development.

The staff development model, which employed the theoretical concept of a conceptually-based training method, combined: (1) presentation of theory, (2) demonstration or modeling of skills, and (3) practice with coaching and feedback (Joyce and Showers, 1983). It was expected that an effective staff development model, which centered its content on learning related teaching skills, would facilitate the applicational transfer of teaching skills to the classroom and increase teachers' effectiveness in providing instruction, assessing and encouraging student progress, and managing the learning environment.

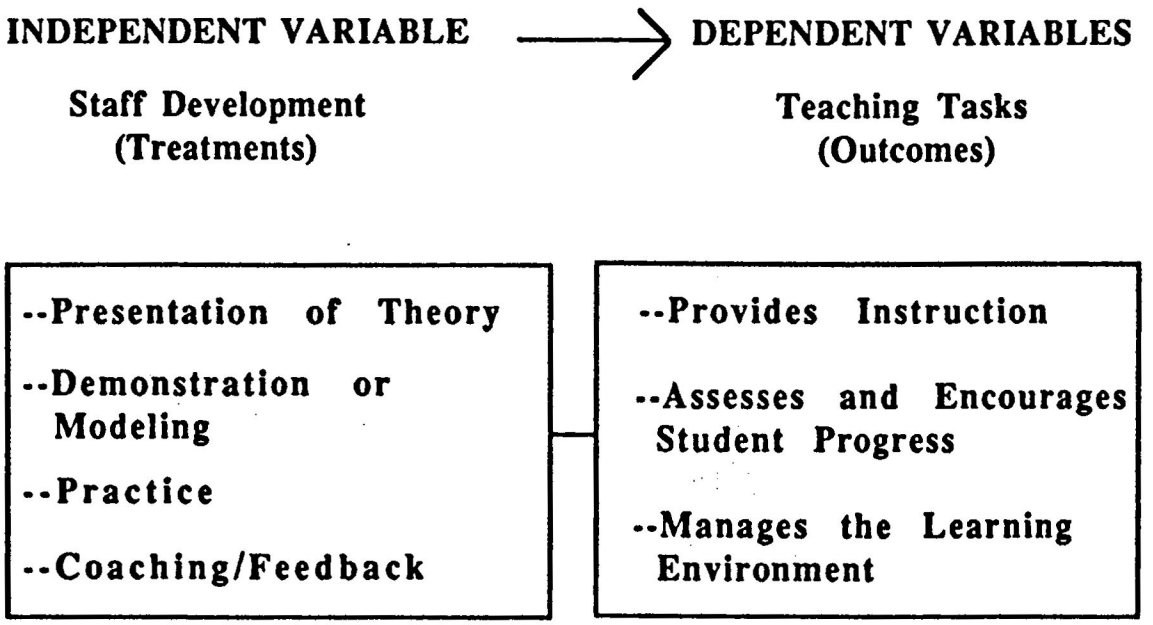
Brophy and Good (1986) summarized the findings of a number of studies which suggested that skills or behaviors can be identified that bear a positive relationship to student learning. Rosenshine (1986) identified such skills or behaviors and related them to student learning. Gage (1984) and Smith (1985) contended that such findings offered a strong research base for reformulation of teacher training programs. This research base was suggested as one source for first-year teachers to learn about classroom effectiveness (Fitzpatrick, 1982; Sparks, 1985; and Joyce and Showers, (1984).

There were two dimensions of this study, a staff development training method, based on the staff development effectiveness research; and the effective performance of teaching skills in the classroom. The operational model developed to show the relationship between the dependent variables (provides instruction, assesses and encourages student progress, and manages the learning environment) and the independent variable (staff development) is

depicted in Figure 1. As indicated, a positive change in the performance of the three teaching tasks was expected because of the effects of the staff development program.

Figure 1

Projected Relationship Between Variables



Some studies have reported programs that have integrated these dimensions (Krajcik and Penick, 1989; and Veenman, Lem, and Roelofs, 1989). Yet, much remains to be studied about the effective integration of training methods and the transfer of the acquired skills to the classroom (Gliessman et al., 1989). Effectiveness must be measured by the quality and degree of improvement in teaching.

The Georgia Teacher Observation Instrument (GTOI), was used to measure teacher effectiveness. It provided a systematic breakdown of the teaching tasks that were measured (these teaching tasks are defined in the instrumentation section). The theoretical framework and projected relationship among the variables led to the folowing three hypotheses:

Hypothesis 1: There is no difference in teacher effectiveness for providing instruction (Teaching Task I) between those teachers who attended the Demonstration Staff Development Program and those who did not attend as measured by the Georgia Teachers Observation Instrument.

Hypothesis 2: There is no difference in teacher effectiveness for assessing and encouraging student progress (Teaching Task II) between teachers who attended the Demonstration Program and those who did not as measured by the Georgia Teacher Observation Instrument.

Hypothesis 3: There is no difference in teacher effectiveness for managing the learning environment (Teaching Task III) between teachers who attended the Demonstration Staff Development

Program and those who did not attend as measured by the Georgia Teacher Observation Instrument.

CHAPTER IV

METHODS AND PROCEDURES

Design of the Study

A quasi-experimental posttest control group research design was used for this study. The researcher investigated the effect of staff development (independent variable) on teacher effectiveness (dependent variable). The researcher used an established group of subjects and administered the treatment condition to that group. A control group was randomly selected. A posttest was administered to both groups. The design is represented below.

Figure 2

Posttest-Control Group Research Design

Group	Treatment	Posttest
A	X	X
B	0	X
	Time	

The research problem was: What is the effect of staff development on teacher effectiveness? Teacher effectiveness was

defined as the degree to which the teacher performs the teaching dimensions of the Georgia Teacher Observation Instrument. The dimensions were scored by the school principals who had received training for observing and scoring the teaching tasks which are performed in the actual classroom. To investigate the problem, two groups, one (experimental) which received two weeks of staff development (treatment), and another group (control) which did not receive treatment, were observed and scored using components of the Georgia Teacher Observation Instrument (See Appendix A). This was administered as a posttest to both the control and experimental groups. The instrument consists of three broad areas of teaching performance called teaching tasks: (1) Providing instruction, (2) assessing and encouraging instruction, and (3) managing the learning environment.

Description of the Setting

The study was conducted in selected elementary and middle schools of the Atlanta School System. The treatment ran concurrently with a six-week elementary summer school remediation program in a local elementary school. This arrangement was essential to carrying out the design of the activity which provided for teachers to explore theory and to directly and immediately apply the new techniques in the classrooms and receive feedback about their performance.

The summer school program was conducted under the administration of a building principal with the support staff

assistance of a teacher participating in an administrative internship, a media specialist, a counselor, and a teaching staff which was selected to also serve the role of master teacher for the staff development activity.

Description of the Population

The study used two groups of probationary teachers. The population consisted of elementary and middle school teachers who have less than three years of teaching experience. The experimental group was an intact group of available staff development participants. Staff development registration was open to all probationary teachers. However, some teachers were referred to the program by their principals as a requirement of their professional development plan (see Appendix A). Rogers (1989) stated that professional development plans are "part of continuing staff development for the individual teacher and are encouraged for all teachers" (p. 21).

Sampling Procedures

The study used 67 probationary teachers who participated in a summer staff development program which ran concurrently for 2 weeks with the summer school program for students. A treatment group was randomly selected from the population of probationary teachers. Both groups were made up of individuals of both sexes. Fewer males were represented in the population than females. This, however, was representative of the number of males represented in

the total school population. These persons were first or second year probationary teachers having just completed 1 or 2 years of employment with the Atlanta School System. Principals responded to a survey which requested them to indicate the extent to which each of the 21 teaching tasks on the survey were observed as teachers performed in their classrooms.

Description of the Instrument

The teacher effectiveness variables were measured by the Georgia Teacher Observation Instrument (GTOI). This instrument was developed in response to the Quality Basic Education Act (QBE) as a performance evaluation requirement for all Georgia teachers.

The GTOI is organized into three broad areas of teaching performance called teaching tasks. These three tasks are: (1) Provides Instruction, (2) Assesses and Encourages Student Progress, and (3) Manages the Learning Environment. Each task is described by a set of measurable components referred to as dimensions. These dimensions are the decision-making units of the systematic evaluation of teaching performance. Some of the dimensions have been divided into subdimensions which provide for a more detailed description of teaching behavior.

Additional components of the GTOI are the sample effective practices. Effective practices are examples of specific behaviors associated with successful performance of a dimension or subdimension.

The GTOI includes research/rationale statements, examples, and questions for each dimension and subdimension. The complete instrument is intended as a training resource, as a scoring and conferencing resource for observers, and as an interpretive resource for teachers and others.

Evaluations must be conducted by trained evaluators, one who has attended all state-approved training sessions and any required update training, and has met state adopted evaluator proficiency requirements. (The school principal is responsible for the management of all teacher evaluations.) (Rogers, 1989)

Validity Information. The initial development of the GTOI was based on a review of teacher effectiveness research. The GTOI dimension statements and effective practices were drawn from well-documented research in this area.

Information for the initial content validation of the 1986 pilot draft of the evaluation instrument was gathered during a job analysis survey of all teachers. Data from this study, along with other information from the pilot tests, resulted in the field-test edition. Two additional affirmations of the validity of the GTOI dimension statements have been sought from Georgia teachers during the field-test year. First, all teachers in the state were surveyed following the orientation during the statewide field-test of the GTEP. Approximately 99% of the respondents indicated that they routinely performed the teaching behaviors described in the GTOI. In addition, approximately 95% responded that these teaching behaviors were important for successful teaching.

In a second study, approximately six thousand randomly selected teachers anonymously responded to one of three sets of questions about the GTOI dimension statements. Ninety-three percent or more of the sample indicated that they frequently performed each dimension. Ninety-three percent or more of the teachers indicated that the dimensions were essential to effective teaching (Rogers, 1989).

Reliability Information. Consistency among observers and instrument interpretation may be the most common reliability concerns. These reliability concerns were checked at two points during training. First, instrument interpretation was checked as part of an observer's proficiency requirements. Measures of proficiency on instrument interpretation included both written tests, using descriptions of teaching situations, and scoring agreement, using videotapes of teaching situations. Second, data were collected from simultaneous observations during field practice activities which were part of the training program. The mean agreement rate across all teachers, observers, and dimensions was .972.

Agreement among observers was also examined during the field-test. A carefully designed study involving four observers over three occasions was conducted during the winter of 1989. The mean agreement rate across all observers, for each teacher on each dimension, and each occasion was .94. Because of the relatively low mean score for teachers in this study, this high index of agreement indicated that observers would agree when a dimension should be

scored "needs improvement" as well as when "satisfactory" scores were awarded.

The reliability of the data generated from the field-test was the most pertinent concern. Generalizability analyses have been conducted on data from 22,405 teachers with three 1988-89 standard GTOI observations. The generalizability coefficient for these studies was .49. This coefficient was limited due to the high mean scores given to teachers and it indicated a modest ability to differentiate teachers and generalize over occasions and dimensions. Additional reliability analyses were conducted to calculate the probability of false denial based on instability or other error in the scores. These analyses showed that a teacher with a true score of no NIs was less likely than 1 in 10,000 to have as many as 5 NIs over 3 observations. Thus, with a scoring model involving aggregating NIs, the GTOI is dependable for identifying teachers who may need improvement (Rogers, 1989).

Data Analysis

A T-Test was used to determine if the mean differences between the experimental and control groups was statistically significant.

Description of the Treatment

The treatment for the experimental group was a structured staff development program focusing on effective teaching practices. It was one of the summer training activities which was planned,

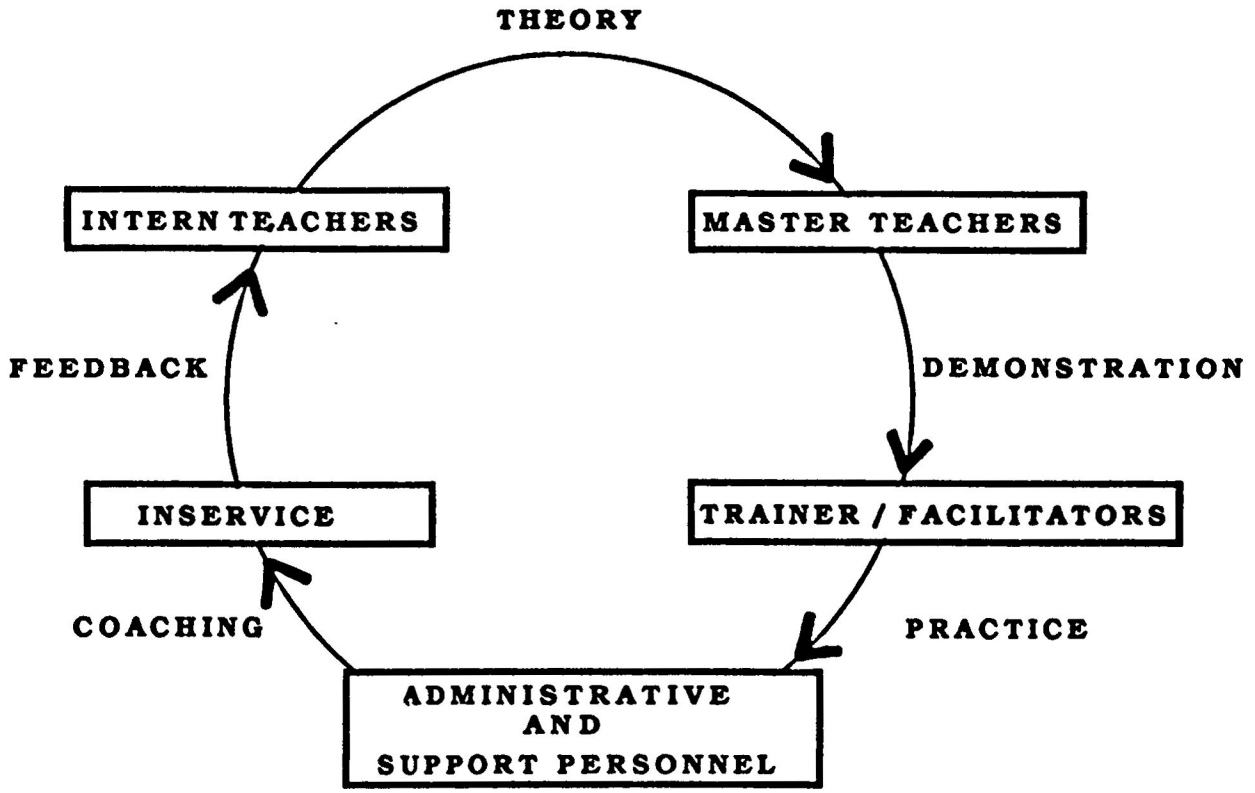
designed, and implemented by the Staff Development Division for the professional improvement of teachers. Each teacher intern received a stipend for completing a 30-hour program. The training model used in this staff development program had several key features which created collaborative relationships between the teacher interns and the trainers and emphasized teachers helping teachers through individual and group processes. The treatment followed Joyce and Showers' (1983) training model of presentation and exploration of theory and demonstration or modeling of skills with feedback and coaching. An intern teacher was paired with a master teacher.

The participants were: Master Teachers, Intern Teachers, University Instructors, and Trainers/Facilitators.

The model for this staff development program is depicted in Figure 3. The operational functions of the model are described on the following pages.

Figure 3

Staff Development Training Model



Master teachers were carefully selected from throughout the school system and provided expert in-classroom assistance to intern teachers. To be selected to the master teacher position required principal recommendation of exemplary teachers who utilized effective teaching practices, had good classroom instructional skills, used excellent interpersonal communication skills, managed a classroom effectively, and were committed to helping teachers with instruction. They modeled demonstration lessons which provided the opportunity for teacher interns to: (1) observe instruction, (2) collect data (each teacher intern was trained to use the Master Teacher Performance Checklist (see Appendix C), (3) give feedback on lessons, and (4) observe and critique videotaped lessons (the master teachers were videotaped during some of the lessons). They provided in-classroom expert assistance to the teachers by discussing individual and school needs and providing professional dialogue essential for preventing feelings of isolation, which were often reported among probationary teachers. Master and intern teachers were paired.

Intern teachers participated in workshop courses and received both theoretical and practical instruction related to carrying out their job responsibilities. The training process emphasized hands-on activities for the intern teachers. They observed and critiqued demonstrations of the master teachers and practiced selected lessons in the summer school classrooms. The lessons were videotaped and constructive feedback was provided by the master teacher and the support staff. There was opportunity to give and receive feedback

about a specific lesson being observed. These processes provided opportunities, both as the observer/provider of feedback and as the practitioner/receiver of feedback.

The program provided in-service courses to ensure that the teachers had some foundation for practices related to teaching. The courses were taught by Clark Atlanta University instructors. The training topics for the courses were selected by the Division of Curriculum and Staff Development and the course contents were developed by the university faculty in cooperation with the Director of Staff Development. The courses were consistent with the school system's instructional goals and aimed at enriching the teachers' subject matter and pedagogical knowledge related to the principles of instruction and managing a classroom. These courses presented a variety of teaching strategies and techniques and offered alternative instructional approaches encouraging teachers to be more reflective about what was occurring during a lesson.

Trainers/facilitators comprised of a principal, resource teachers, and curriculum specialists, who were well-versed in all aspects of instruction and curricular activities, provided orientation, scheduled activities, arranged for equipment to be available, worked to improve teacher attitudes and relationships, led discussions on instructional and curricular topics, and served as problem solvers to ensure an overall smooth implementation. Also, the team served as a liaison between the Staff Development Director and the program activity. In doing so, they disseminated information, conducted

meetings for information sharing and assisted the principal with program related responsibilities.

The summer school program, which provided the school setting for learning and practicing the staff development activities, was staffed with a building principal, media specialist and a counselor. The master teachers taught the summer school classes. The school provided a convenient meeting place for group activities such as lectures or workshops through which information on subject matter, curriculum and teaching strategies was transmitted. It provided actual classrooms for hands-on experiences and enabled teachers to receive on-the-spot coaching for the direct application of new skills and strategies in the classroom.

In designing the staff development activities, the training process was guided by the recommendations of Joyce and Showers (1983) from their studies of professional development. The five major suggested components of training are: (1) Presentation of theory, (2) modeling or demonstration of skill, (3) practice under simulated conditions, (4) feedback about performance, and (5) coaching in the workplace.

The inservice courses which were conducted by faculty from Clark Atlanta University established a theoretical base that focused on relevant skills, methods, and ideas necessary for exemplary teaching. The courses related to in-school experiences and focused on planning and developing strategies consistent with effective instruction.

The demonstration or modeling of a skill was done under actual classroom conditions. The intern teachers observed the master teachers perform the teaching tasks as they conducted their daily classes. Additionally, master teachers were videotaped for purposes of observation and analysis.

Opportunities for practice were also conducted under real conditions. The intern teachers applied the acquired skills by planning and teaching lessons in the classroom to which they were assigned for their practical experiences. They too, were videotaped for observation and feedback purposes.

The opportunities for feedback followed two directions. Both groups (intern and master teachers) observed and gathered data on a lesson taught by the other, and provided information about the performance through the feedback process. The intern teachers provided and received feedback and coaching as part of the training process. Master teachers used coaching to provide one-to-one assistance to help intern teachers evaluate their teaching, assess their current strengths and weaknesses, review effective teaching practices and identify areas of potential professional growth.

This program was designed to provide inservice for teachers in effective instructional practices so that they might analyze their teaching and apply these practices in the classrooms. The treatment design was a comprehensive in-school approach which through teamwork between key participants (school personnel and university faculty) developed a spirit of collective responsibility for professional

development and permitted teachers to receive both theoretical and practical instruction simultaneously.

The treatment procedures for this study are listed below:

1. The study examined the effects of a staff development program on the teaching performance of probationary teachers.

2. The study was a quasi-experimental with treatment (N= 67) and control (N= 64) groups of teachers.

3. The staff development program (treatment) was part of the regular inservice training activities of the Division of Staff Development.

4. Additional school based training/orientation was provided for both groups (experimental and control) at the school level.

5. 152 surveys (see Appendix B) were sent to elementary and middle school principals to solicit their responses of how often teachers performed the designated teaching tasks. 133 responses were returned (87%). (See Table 1 for demographic traits of respondents.)

6. Responses from principals were tabulated. The mean of the ratings was computed for each teaching task.

7. T-Test was used to determine the significant difference among the mean scores between the two groups.

8. The results of the study are presented in Chapter V.

Data Collection Procedures

Data for the study were gathered from observations conducted in the actual classrooms while teachers performed selected teaching

tasks to a full-sized class. Trained observers ranked the degree of effectiveness to which each teacher performed selected teaching tasks.

CHAPTER V

ANALYSIS OF RESULTS

The purpose of the study was to investigate the effect of a staff development program on teacher performance regarding: (a) improving instruction, (b) assessing and encouraging student progress, and (c) managing the learning environment. These teaching tasks were measured using the Georgia Teacher Observation Instrument which was administered to the teachers, by school administrators, during the 1989-90 school year. The study sought to answer the following research questions:

1. Is there a statistically significant difference in the teacher's ability to provide instruction, as measured by dimensions of the GTOI, between teachers who participated in the summer staff development and those teachers who did not?

2. Is there a statistically significant difference in the teacher's ability to assess and encourage student progress, as measured by dimensions of the GTOI, between teachers who participated in the summer staff development and those teachers who did not?

3. Is there a statistically significant difference in the teacher's ability to manage the learning environment, as measured by dimensions of the GTOI, between teachers who participated in the summer staff development training and those teachers who did not?

4. Is there a significant difference in the teaching performance of teachers in different age ranges?

5. Is there a significant difference in the teaching performance of teachers at the elementary or middle school level?

Demographics of the Sample Population

Surveys were used to get the principals' responses of how often probationary teachers performed the teaching tasks of the Georgia Teacher Observation Instrument. Principals reported observational data which they collected in the classrooms of the teachers in the experimental and control groups of this study. The total number of probationary teachers in the Atlanta schools was 503 and the percentage of those teachers surveyed for this study was 26%. The demographic traits of the sample population are reported in Table 1.

Table 1

Demographic Traits of the Sample Population

(Frequencies and Percentages)

Group	Age Ranges				
	23-29	30-36	37-43	44 and above	Total
Experimental	24	27	6	9	66
	(36.4%)	(40.9%)	(9.1%)	(13.6%)	
Control	17	23	17	7	64
	(26.6%)	(35.9%)	(26.6%)	(10.9%)	
TOTAL	41	50	23	16	130
	(31.5%)	(38.5%)	(17.7%)	(12.3%)	

	Instructional Level			
	K-3	4-5	6-8	Total
Experimental	34	25	6	65
	(52.3%)	(38.5%)	(9.2%)	
Control	20	34	9	63
	(31.7%)	(54.0%)	(14.3%)	
TOTAL	54	59	15	128
	(42.2%)	(46.1%)	(11.7%)	

	Sex		
	Male	Female	Total
Experimental	4	62	66
	(6.1%)	(93.9%)	
Control	10	54	64
	(15.6%)	(84.4%)	
TOTAL	14	116	130
	(10.8%)	(89.2%)	

	Certification Level			
	Bachelors	Masters	Specialists	Total
Experimental	45	21	1	67
	(67.2%)	(31.3%)	(1.5%)	
Control	48	15	0	63
	(76.2%)	(23.8%)	(0.0%)	
TOTAL	93	36	1	130
	(71.5%)	(27.7%)	(0.8%)	

An analysis of the data for the sample population revealed that the largest number of teachers (38%) were between the ages of 30-35. It can be seen that most of the teachers were assigned at the primary (42%) and intermediate (46%) instructional levels while only 12% of those teachers surveyed taught in the middle grades. Very few males were represented in the sample group (10%). Further analyses revealed that the largest number of teachers represented in the sample population held certification at the bachelor's level.

Hypotheses

Hypothesis one sought to determine the difference in teacher effectiveness for providing instruction (GTOI Teaching Task I) between teachers who were inserviced in the staff development program and those who were not. Research hypothesis one was stated as follows:

> HO_1: There is no difference in teacher effectiveness for providing instruction (Teaching Task I) between those teachers who attended the Demonstration Staff Development Program and those who did not attend as measured by the Georgia Teachers Observation Instrument.

As a part of the analysis of data, the T-Test was used to determine the difference between the mean scores of the two groups (experimental and control). The level of significance was set at .01.

To quantify the results of the instructional dimensions, the survey requested the principals to report the degree to which they

observed each instructional dimension as: 1= very often, 2= often, 3= sometimes, 4= seldom, and 5= never. The results of the analysis are reported in Table 2.

Table 2

Comparison Between Experimental and Control Groups on Teaching Task I: Provides Instruction

	N	Mean	Difference	S.D.	DF	T-Value	Probability
Experimental Group	67	4.55	.91	0.47	129	9.54	.01
Control Group	64	3.64	-.91	0.61			

The mean scores for the experimental and control groups were 4.55 and 3.64, respectively. These mean scores represented a .91 difference in mean scores between the two groups with the higher mean score attributed to the experimental group.

As indicated in Table 2, the T-Value of 9.54 proved to be statistically significant at the .01 level. HO_1 is therefore rejected. There is a significant difference in teacher effectiveness for providing instruction between those teachers who attended the staff development program and those who did not attend the sessions.

Hypothesis two sought to determine the difference in teacher effectiveness for assessing and encouraging student progress (Teaching Task II) between teachers who attended the staff

development program and those who did not attend. Research hypothesis two was stated as follows:

> HO_2: There is no difference in teacher effectiveness for assessing and encouraging student progress (Teaching Task II) between teachers who attended the Demonstration Program and those who did not as measured by the Georgia Teacher Observation Instrument.

Following the same statistical procedure, the level of significance remained at .01 and the T-Test was performed to test the statistical significance of the difference between the mean scores of the two groups (experimental and control). The results of the analysis are reported in Table 3.

Table 3

Comparison Between Experimental and Control Groups on Teaching Task II: Assesses and Encourages Student Progress

	N	Mean	Difference	S.D.	DF	T-Value	Probability
Experimental Group	67	4.50	1.03	0.49	129	9.98	.01
Control Group	64	3.47	-1.03	0.68			

Based on the resultant data, the mean scores for the experimental group and the control group were 4.50 and 3.47, respectively. These scores represent a 1.03 difference between the mean scores of the two groups with the higher mean score attributed to the experimental group. As presented in Table 3, the T-ratio Value proved to be statistically significant at the .01 level. The computed T-Value is greater than the tabled value; the null hypothesis was rejected. There is a significant difference in teacher effectiveness for assessing and encouraging student progress between teachers who attended the staff development program and those who did not attend.

Hypothesis three sought to determine if there was a significant difference in teacher effectiveness for managing the learning environment (Teaching Task III) between teachers who attended the staff development program and those who did not attend the program. Research hypothesis three was stated as follows:

> HO3: There is no difference in teacher effectiveness for managing the learning environment (Teaching Task III) between teachers who attended the Demonstration Staff Development Program and those who did not attend as measured by the Georgia Teacher Observation Instrument.

Setting .01 as the level of significance, a T-Test of significance was performed on the mean scores for the two groups (experimental and control). The summary of the analyses is presented in Table 4.

Table 4

Comparison Between Experimental and Control Groups on Teaching Task III: Manages the Learning Environment

	N	Mean	Difference	S.D.	DF	T-Value	Probability
Experimental Group	67	4.49	.99	0.55	129	8.52	.01
Control Group	64	3.50	-.99	0.77			

The T-Value of 8.52 was statistically significant at the .01 level. This means that the two groups are statistically different from each other on managing the learning environment (Teaching Task III), observation scores and the null hypothesis was rejected. There is a significant difference in teacher effectiveness for managing the learning environment between teachers who attended the staff development and those who did not attend.

To determine if there was a significant difference in the teaching performance of teachers in different age ranges, the ANOVA (analysis of variance) was applied. The numerical values of 1, 2, 3, 4, and 5 were assigned to calculate the scores and represent a possible range of 1= very often to 5= never. The results of this analysis are reported in Tables 5, 6, and 7.

Table 5

Comparison of Responses by Age on Provides Instruction

Age	N	Mean	S.D.	DF	F-Value	Probability
23 - 29	41	4.23	0.60	3/126	1.42	.05
30 - 36	50	4.07	0.68			
37 - 43	23	3.87	0.78			
44 and above	16	4.19	0.87			

Table 6

Comparison of Responses by Age on Assesses and Encourages Student Progress

Age	N	Mean	S.D.	DF	F-Value	Probability
23 - 29	41	4.13	0.71	3/126	1.83	.05
30 - 36	50	3.94	0.79			
37 - 43	23	3.71	0.90			
44 and above	16	4.19	0.68			

Table 7

Comparison of Responses by Age on Manages the Learning Environment

Age	N	Mean	S.D.	DF	F-Value	Probability
23 - 29	41	4.20	0.75	3/126	1.90	.05
30 - 36	50	3.96	0.82			
37 - 43	23	3.70	0.91			
44 and above	16	4.06	0.93			

In an analysis of the data for tables 5, 6 and 7, the youngest age group, age 23-29, scored the highest on each teaching task: provides instruction, assesses and encourages student progress, and manages the learning environment. Table 5 reports the F-Value for teaching task I: provides instruction (F= 1.42). In Table 6, the F-Value for teaching task II, assesses and encourages student progress is (F= 1.83). Table 7 shows the F-Value for teaching task III, manages the learning environment (F= 1.90). The ANOVA of mean score differences did not reveal statistically significant differences (p= .05) for teaching task I, II, nor III. This means that the age groups are not statistically different from each other on observation scores reported for the three teaching tasks.

To answer the research question, is there a significant difference in the teaching performance between elementary and middle school teachers on the three teaching tasks: provides instruction, assesses, and encourages student progress and manages the learning environment; the T-Test was applied to test statistical significance of the differences in the mean scores. The summary of the analyses is presented in Tables 8, 9, and 10.

Table 8

Comparison Between Middle and Elementary Teacher Responses on Teaching Task I: Provides Instruction

	N	Mean	Difference	S.D.	DF	T-Value	Probability
Middle School	15	4.12	.03	0.67	126	0.15	.05
Elementary School	113	4.09	-.03	0.72			

Table 9

Comparison Between Middle and Elementary Teacher Responses on Teaching Task II: Assesses and Encourages Student Progress

	N	Mean	Difference	S.D.	DF	T-Value	Probability
Middle School	15	4.00	.02	0.59	126	0.11	.05
Elementary School	113	3.98	-.02	0.81			

Table 10

Comparison Between Middle and Elementary Teacher Responses on Teaching Task III: Manages the Learning Environment

	N	Mean	Difference	S.D.	DF	T-Value	Probability
Middle School	15	4.00	.00	0.66	126	0.11	.05
Elementary School	113	4.00	.00	0.86			

As shown in Tables 8, 9 and 10, the middle school group was represented by a limited number of subjects. The size of the sample group was a limiting factor on the results of the analysis. The mean scores for each teaching task were very close between the two groups. The mean score for provides instruction was 4.12 for the middle school group and 4.09 for the elementary group, a difference of .04. On assesses and encourages student progress, the middle group mean score was 4.00 and the elementary group was 3.98, a .02 difference. On manages the classroom environment, the mean score of 4.00 was the same for both groups (middle and elementary). The values for each teaching task presented in tables 8, 9 and 10 which are shown as: provides instruction (T= 0.15), assesses and encourages student progress (T= 0.11), and manages the learning environment (T= 0.11). The T-values for neither teaching task was statistically significant. The results indicated that there was no

statistical significant difference between the mean scores of the middle versus the elementary group on providing instruction, assessing and encouraging student progress nor monitoring the environment.

Summary

The data collected and analyzed in this study were based on three null hypotheses. The mean score differences for each hypothesis revealed statistically significant differences for providing instruction, assessing and encouraging student progress and manages the environment between the experimental and control groups. The study revealed that the experimental group scored significantly higher than the control group on the three teaching tasks. The study concludes that the mean differences between ages and between middle and elementary levels were not statistically significant.

CHAPTER VI

SUMMARY, FINDINGS, CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

Summary

This study investigated the effects of a staff development program on teacher performance regarding: improving instruction, assessing and encouraging student progress, and managing the learning environment. This program was part of the regular summer inservice training activities of the Staff Development Division of the Atlanta Public School System. The program incorporated selected findings from teaching effectiveness research into a training method drawn from research findings which employed both theoretical and practical instruction simultaneously.

The training model offered group and individual experiences in a combination of research based training practices which included theory presentation, demonstration, practice, feedback and coaching. The treatment ran concurrently with a six-week summer school remediation program for elementary students. The control group was not given orientation, apart from that generally provided all teachers at the school level. Responses from principals to a survey that grouped 17 variables into three teaching tasks provided data which were analyzed for the study.

Several writers suggested that a measurement used to gauge the effectiveness of staff development is its potential tie to the teachers' classroom performance; a tie evidenced by teachers being observed to apply information from research and "best practice" in their classrooms and demonstrate a congruency between newly acquired skill/knowledge and classroom practice. This study was undertaken to investigate the application of newly presented skills in the classroom.

Findings

The study revealed that the scores from the experimental group on the three teaching tasks were statistically different from those of the control group. The mean performance score for the experimental group was higher than that of the control group for each one of the three teaching tasks examined. A T-Test of significance was performed on scores from observations for the two groups of teachers. The T-Value for each task was statistically significant.

When examining the highest scored teaching task regarding teacher effectiveness, the largest difference (though very slight for both groups) existed for the first teaching task, provides instruction. This task gives consideration to teaching behaviors that ensure that the lesson amount and content are appropriate for the learners, use appropriate techniques to develop lessons through a proper sequence, give learners appropriate opportunity for practice, and effect learning transfer.

With a very slight mean score difference, task three, manages the learning environment was scored lowest by the experimental group. This task gives consideration to teaching behaviors that optimize the use of time, plan the instructional and physical environment in a functional and efficient manner, and maintain appropriate behavior. Again, the mean scores within the experimental group for each of the three teaching tasks were very closely aligned.

In a like manner, only slight differences were reported within the control group on each of the three teaching tasks. With a slight difference between mean performance scores within the control group, scores were reported to be slightly lower on the second teaching task, assesses and encourages student progress. This task identifies the teaching behaviors that engage students in stimulating presentations, monitors student understanding, interprets student responses, responds to student performance, and supports students in a risk free environment.

On instructional levels, there was no significant difference between the mean scores of the middle and elementary groups (see Table 8, p. 60). The subgroups in various age combinations showed no statistical significance as well (see Table 7, p. 59).

Conclusions

The question of whether participation in the staff development program could have an effect on teacher performance in the classroom seems to have been answered by the results of this study.

It seems possible to assume that the staff development program for teachers resulted in changes in teachers' classroom performance and subsequently in the effectiveness of the three teaching tasks observed. Teachers who participated in the staff development program were reported to perform more frequently (than teachers in the control group) those behaviors related to each teaching task:

1. provides instruction
2. assesses and encourages student progress
3. manages the learning environment.

The findings in this study that treatment teachers who were exposed to the staff development model were observed to perform effective teaching tasks more frequently than teachers in the control group supports the findings of studies by Joyce and Showers (1983), Leggett and Hoyle (1987), and Sparks (1985). The finding is explained as introducing teachers to the real world of the classroom by establishing closer links between teacher training and classroom practice. Based on the review of the literature and the results of this study, one would conclude that teachers can learn about teaching from a training experience that is focused on learning and teaching. This conclusion supports the notion from the literature that connecting related research, training, and practice could reduce the lag between what we know and what we do.

Implications

The following implications are drawn from the findings and conclusions of this study:

(1) If what has been found with this sample is true for other probationary teachers, then there is a need for such a training model to continue as a staff development option for probationary teachers.

(2) Effective training programs include several design components (theory, practice, modeling, etc.), blending of these components in the proper combinations are important for specified outcomes.

(3) Formation of a support team is of particular help to beginning teachers. This team might include master teachers, a school principal, resource teacher, and a curriculum specialist.

(4) Program content must be structured to prepare teachers for a specified task/skill that is relevant and practical to the needs of the teacher.

(5) Training is enhanced when a theoretical/knowledge base facilitates understanding of the skill presented and further enhanced through "hands on" experience with feedback.

(6) Research findings from "staff development and teaching effectiveness studies" can provide sufficient direction for planning a staff development program that is congruent with good teaching practices.

(7) Teachers can acquire specific teaching practices while participating in a staff development program, and such practices/skills can be transferred to the classroom and increase the effectiveness of teacher performance.

(8) This pattern or plan can be used to guide the design of a staff development program aimed at not only increasing teachers'

knowledge base but one that facilitates the transfer of teaching skills to the classroom.

(9) This model may serve to improve student performance, increase teacher morale, and result in the retention of new teachers.

(10) This model applied or adapted in a teacher education context could contribute to the more general effectiveness of teacher training at the college and university levels.

Recommendations

1. If what has been found with this study is true of other probationary teachers, then there is a need for such training as a requirement for all probationary teachers.
2. Consideration should be given to the value of such a program for veteran teachers who are observed to demonstrate severe classroom performance deficits.
3. Staff development planners should be encouraged to select approaches and best practices that have been verified by research to improve teacher effectiveness to include:
   (a) link goals and objectives of the program with the needs of the participants. Base planning on continuous assessment of staff needs and develop content that is realistic, important, relevant, and practical for improving the participants' job performance.
   (b) include theory presentation, demonstration, practice and feedback as training components whenever feasible.

(c) provide support staff to help teachers develop confidence and competence by encouraging them to practice the newly learned skills, diagnose their strengths and weaknesses, and suggest changes that will likely make them more successful.

4. Additional studies should be conducted to examine the effects of integrating training components to achieve specified outcomes and to give insights into which training interventions can be combined to impact performance in a given skill area.
5. Additional studies should further isolate the key components of the training experience and determine how each (i.e., demonstrations) contributes to the effectiveness of the tasks performed (i.e., targeted outcome). Such findings would give answers to such questions as: Which training methods are considered ideal? Sufficient? Necessary?
6. Closer links with colleges of education should be established and training ideas and findings should be shared.

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APPENDIX A

ATLANTA PUBLIC SCHOOLS
STAFF DEVELOPMENT

PROFESSIONAL DEVELOPMENT PLAN

NAME_____

WORKSITE_____

CHECK AREA OF NEED

ORIGIN OF NEED: (check if applicable)

_____ A. PROFESSIONAL deficiency (specific need)
Immediate supervisor has indicated a need for improvement in a specific area, e.g., developing lessons, classroom management, teaching in the content area.

_____ B. RESULTS OF PERSONNEL EVALUATION (specific need)
Annual evaluation mandates improvement. Individual has received five (5) or more Needs Improvement (NI).

_____ C. INSTRUCTIONAL PROGRAM NEEDS (program need)
Test results or deficiencies in the instructional program require additional training and improvement.

_____ D. NEW EMPLOYEE OR NEWLY ASSIGNED RESPONSIBILITIES (induction need)
Persons new to the system (three years or less) or those persons who have been given new duties or responsibilities.

PROFESSIONAL OBJECTIVES: (Designate which Origin of Need. (A, B, C, D)

_____

_____

ACTIVITIES/PROCEDURES/TIMELINES: _____

_____

_____

HOW WILL IMPROVEMENT BE MEASURED? _____

_____

_____

Comments:

_____
Signature: Principal/Supervisor

DCRS/SSS 5/89
Duplicate form if necessary.

APPENDIX B

GEORGIA TEACHER OBSERVATION INSTRUMENT

Directions: Please respond to each of the statements. Darken in the bubble that most closely corresponds to your perceptions of how often these practices are performed according to the following scoring guide. Use a number 2 pencil.

A	B	C	D	E
Very Often	Often	Sometimes	Seldom	Never

1. Teachers age range:
   A. 23 - 29
   B. 30 - 36
   C. 37 - 43
   D. 44 - and beyond

2. Instructional level taught:
   A. Primary (K-3)
   B. Intermediate (4-5)
   C. Middle (6-8)

3. Sex:
   A. Male
   B. Female

4. Certification level:
   A. Bachelors
   B. Masters
   C. Specialist
   D. Doctorate

TEACHING TASK I: PROVIDES INSTRUCTION

5. The amount and organization of the lesson content are appropriate for the students based on their abilities and the complexity and difficulty of the material.

6. Content is explained, discussed, or reviewed in an appropriate sequence through techniques such as using definitions, examples, demonstrations, and modeling or through teacher-guided group activities.

7. Student-focused activities provide appropriate opportunities for students to practice or extend previous content or to generate new content.

8. Initial activity focuses students' attention on lesson objectives and the learning context.

9. Content is made easy to learn and remember through emphasizing major features, critical attributes, or other distinguishing parts of the learning.

10. Content is made easy to learn and remember through linking it to relevant life experiences, to prior or future learning or through associations.

11. Learning is reinforced with appropriate summaries.

TEACHING TASK II: ASSESSES AND ENCOURAGES STUDENT PROGRESS

12. Instructional engagement is promoted through stimulating presentations, active participation, or techniques which promote overt or covert involvement.

13. Progress, understanding, and bases of misunderstanding are assessed by interpreting relevant student responses, contributions, performances, or products.

14. Students are provided content-related reinforcement on performances which are adequate and information on why they are adequate when appropriate.

15. Students with poor performances or incorrect responses are given specific content-related feedback or correctives such as prompts or cues.

16. Support for students is conveyed by using techniques such as providing encouragement, lowering concern levels, dignifying responses, and using language free of sarcasm, ridicule, and humiliating references.

TEACHING TASK III: MANAGES THE LEARNING ENVIRONMENT

17. Instructional time is maximized by techniques such as providing clear and complete directions and using efficient methods for transitions, materials distribution, and other routine matters.

18. Use of instructional time is optimized by techniques such as focusing on objectives and providing sufficient instructional activities.

19. The physical setting allows the students to observe the focus of instruction, to work without disruption, to obtain materials, and to move about easily; and it allows the teacher to monitor the students and to move among them.

20. Appropriate behavior is maintained through techniques such as monitoring the behavior of the entire class, establishing clear and consistent expectations, and providing positive feedback when appropriate.

21. Appropriate behavior is maintained by providing appropriate feedback or interventions when learners are off-task or disruptive.

APPENDIX C

MASTER TEACHER PERFORMANCE CHECKLIST
SUMMER 1989

Week of_____

NAME_____ GRADE_____

SUBJECT_____ SCHOOL_____

THE TEACHER WILL:	CHECK IF OBSERVED:				
Performance Objectives and Indicators:	M	T	W	TH	F
I. Organize time, space, materials, and equipment for instruction					
1. Attend to routine tasks.					
2. Use instructional time effectively.					
3. Provide a physical environment that is conducive to learning.					
Comments:_____					
II. Obtain information about the needs and progress of learners					
4. Determine students' instructional level based on review of records and preassessment data.					
5. Continuously assess students' progress.					
6. Evaluate mastery of identified instructional objectives.					
Comments:_____					
III. Plan instruction to achieve selected objectives					
7. Use task analysis to specify or select learner objectives.					
8. Specify or select learner activities.					
9. Specify or select materials and/or media.					
10. Plan activities and/or assignments which take into account learner difference.					
Comments:_____					

Master Teacher Performance Checklist (continued)

THE TEACHER WILL:	CHECK IF OBSERVED:				
	M	T	W	TH	F
VII. Maintain a positive learning environment					
21. Use verbal and nonverbal encouragement to promote the positive academic and/or social behavior of a specific student or the whole class.					
22. Help learners develop positive self-concepts.					
23. Interact between and among teachers and students showing respect and concern for all.					
Comments:_____					
VII. Maintain appropriate classroom behavior					
24. Maintain learner involvement in instruction.					
25. Redirect learners who are off-task.					
26. Communicate clear expectations about behavior.					
27. Manage disruptive behavior.					
Comments:_____					

Adapted from the Georgia Teacher Performance Assessment Instrument (1988), the Georgia Teacher Observation Instrument, and the Atlanta Public School Expectations/ Monitoring Audit Checklist (1988-89).

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